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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/530,570	04/07/2005	Heino Foersterling	123209	8991

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EXAMINER

BURCH, MELODY M

ART UNIT	PAPER NUMBER
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3683

MAIL DATE	DELIVERY MODE
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/530,570	Applicant(s) FOERSTERLING ET AL.	
	Examiner Melody M. Burch	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-26 is/are pending in the application.
- 4a) Of the above claim(s) 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-22 and 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because figure 4 includes multiple views for a single figure number. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37

CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14-16, 19, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten.

Re: claims 14-16, 19, 20, and 22. JP'403 shows in figure 1 a damping device in particular capable of use for cable-stayed bridges comprising a differential cylinder, a tank, two hydraulic units, and an electric motor associated to the hydraulic units, characterized in that a hydraulic unit is arranged in the pressure medium flow path between the tank and a piston rod side ring chamber and the second hydraulic unit in the pressure medium flow path between the ring chamber and a cylinder chamber.

JP'403 lacks the limitation of a hydraulic accumulator.

Achten teaches in col. 4 lines 35-36 and in the figure on the front the use of a piston cylinder device including a hydraulic accumulator 64.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder damping device of JP'403 to

have included a hydraulic accumulator, as taught by Achten, in order to provide a means of absorbing fluctuations in fluid pressure within the device.

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten as applied to claim 15 above, and further in view of US Patent 6216456 to Mitchell.

JP'403, as modified, describe the invention substantially as set forth above, but is silent with regards to a pressure transducer for one of the cylinders.

Mitchell teaches the use of a pressure transducer 72 or 74 for measuring a pressure prevailing in one of the chambers of the piston-cylinder device.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder damping device of JP'403, as modified, to have included a pressure transducer, as taught by Mitchell, in order to provide a means of actively controlling the damping capacity depending on the pressure data from the transducer.

6. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten as applied to claim 15 above, and further in view of US Patent 5810125 to Gezari.

JP'403, as modified, describe the invention substantially as set forth above, but is silent with regards to a pressure transducer for the hydraulic accumulator.

Gezari teaches the use of an accumulator pressure sensor 34.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder damping device of JP'403, as

modified, to have included a pressure transducer, as taught by Gezari, in order to provide a means of actively controlling the damping capacity depending on the pressure data from the transducer.

7. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten as applied to claim 14 above, and further in view of US Patent 5988330 to Morris.

JP'403, as modified, describe the invention substantially as set forth above, but is silent with regards to the piston being fixedly mounted and the cylinder jacket of the cylinder being guided in an axially displaceable manner.

Morris teaches in col. 7 lines 50-53 the use of either the piston being fixed and the cylinder being axially guided or vice versa.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston-cylinder arrangement to have included the piston being fixed and the cylinder being movable, as taught by Morris, in order to provide a functionally equivalent means of effecting movement resulting in damping.

8. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP-2001241403 (JP'403) in view of US Patent 6575076 to Achten as applied to claim 14 above, and further in view of US Patent 5706919 to Kruckemeyer et al.

JP'403, as modified, are silent with regards to the ring chamber being sealed with a gap seal.

Kruckemeyer et al. teach in figure 1 the use of a gap seal 37 that seals one chamber against the external environment and/or against the other chamber.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the piston of JP'403, as modified, to have included a gap seal, as taught by Kruckemeyer et al., in order to provide a means of fluidly separating the ring chamber from the cylinder chamber to ensure proper operation of the damping device.

Response to Arguments

9. Applicant's arguments filed 9/5/07 have been fully considered but they are not persuasive. Applicant argues that in JP'403 the hydraulic unit P2 connects the tank with the cylindrical chamber. Examiner agrees that the tank is connected to the cylindrical chamber or left element (a) via unit P2, but also notes that the first hydraulic unit P2 is arranged in the pressure medium flow path between the tank and the piston rod-side ring chamber or right element (a) by way of conduit 15 and unit P1. Applicant also argues that JP'403 discloses a motor used to drive the hydraulic units P1 and P2. Examiner agrees and used that fact as support for the rejection of claim 16 of the instant invention which recites "wherein the electric motor drives the hydraulic units." Since no other arguments were presented, the rejections have been maintained.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melody M. Burch whose telephone number is 571-272-7114. The examiner can normally be reached on Monday-Friday (6:30 AM-3:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi can be reached on 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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mmb
November 14, 2007

Melody M. Burch
Melody M. Burch
Primary Examiner
Art Unit 3683
11/14/07